

CLAIMS

I claim:

1. A pyrotechnic device for simulating weapons firing and/or hit indications comprised of:
 - a magazine having a plurality of receptacles for receiving a plurality of corresponding rounds,
 - a top plate,
 - a bottom plate,
 - an electronic housing, and
 - a plurality of spaced electrical contacts, and circuitry.
2. The device of claim 1, wherein
the magazine can receive up to thirty rounds.
3. The device of Claim 1 further comprising
a means of aligning and securing the magazine through guide bolts and adjustable locking hinge means respectively, in which the rounds are ohmically spaced to receive the plurality of contacts of the top plate, wherein all said rounds simultaneously engage the corresponding contacts of the top plate.
4. The device of claim 1 wherein
the magazine includes a plurality of detent pins and contacts points which properly engage operation of the device.

5. The device of claim 1 wherein
the top plate contains a plurality of flanged button contacts, and wherein the device further comprises a means for securing the top plate to the electronic housing are provided.
6. The device of claim 5, wherein
each of the flanged button contacts are comprised of a plug.
7. The device of claim 6 wherein
the plug is made of a conductive material.
8. The device of claim 7 wherein
the conductive material is stainless steel.
9. The device of claim 7 wherein
each of the flanged button contacts are also comprised of conductive rubber, nylon headed bushing, a neoprene washer; a nylon sleeve and a stainless steel spring.
10. The device of claim 5 wherein
a top of the top plate contains conductive rubber cylindrically applied juxtaposing the plurality of receptacles of the magazine to form a plurality of electrical contact receptors.
11. A pyrotechnic device for simulating weapons firing and/or hit indications comprising
a magazine comprised of a plurality of receptacles for receiving a corresponding plurality of rounds,

a top plate,
a bottom plate
an electronic housing, and
a plurality of space electrical contacts, and circuitry.

12. The device as claimed in Claim 11, wherein

the circuitry includes a source of electrical power source which provides electrical power to the electrical contacts.

13. The device as claimed in Claim 12 wherein

the circuitry can delay the application of electrical power to the device and conduct validation functions for the device, prior to device ignition.

14. The device as claimed in Claim 13, wherein

the circuitry provides the capability of fifteen programmable firing sequences and igniting the received round in the secured magazine.

15. The device as claimed in Claim 11, wherein

the circuitry can perform a special ignition application.

16. The device of claim 15 wherein

the special ignition application is an anti-personnel application.

17. The device of claim 15 wherein

the special ignition application is an anti-tank training application.

18. The device of claim 15 wherein

the special ignition application is a mine dispensing simulation.

19. The device of claim 15 wherein

the special ignition application is a car or truck bomb simulation.

20. The device of claim 15 wherein

the special ignition application is a Claymore simulation and urban MOUD training.

21. A pyrotechnic device for simulating weapons firing and/or hit indications, comprising

a magazine comprised of a plurality of receptacles for receiving a corresponding plurality of rounds;

a top plate;

a bottom plate;

an electronic housing;

a plurality of space electrical contacts, and circuitry.

22. The device of claim 21, wherein

the electronic housing has a cavity containing the circuitry and further comprising means to secure the circuitry in the electronic housing

23. The device of claim 21, wherein

the circuitry is located on a circuit board, and the circuitry connects bodies of button contacts secured to the mating plate for igniting the received rounds in the magazine in a manner creating a hermetically seal therewith.

24. The device of claim 21, wherein

the circuitry is located on a circuit board, and the circuitry can accept operation of the device via remote control.

25. A method comprising

attempting to fire a plurality of pyrotechnic rounds from a corresponding plurality of chambers from a firing apparatus with a single fire command; and

if one or more of the pyrotechnic rounds did fire, re-applying enough electrical energy to burn out a bridgewire of one or more pyrotechnic rounds that did fire.

26. An apparatus comprising

a bored magazine adaptable for use in a pyrotechnic device for simulating weapons firing and/or hit indications

wherein the bored magazine is comprised of a plurality of chamber locations; and

wherein the bored magazine is capable of accepting both M30 or M31 type rounds in any one of the plurality of chamber locations.

27. An apparatus comprising

a light emitting diode test block that is used to test the function of a pyrotechnic device for simulating weapons firing and/or hit indications.

28. The apparatus of claim 27 wherein

the light emitting diode is also capable of verifying a mode of operation that the pyrotechnic device is setup for.